MASS. UM4.2: Q38

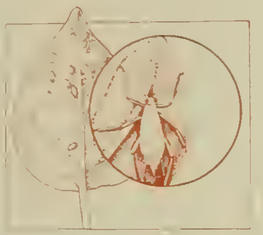
UMASS/AMHERST
312066016605737

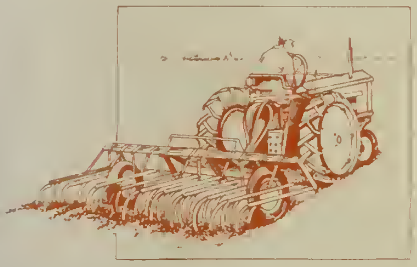
University of Massachusetts Cooperative Extension Syst

QUESTIONS AND ANSWERS ABOUT INTEGRATED PEST MANAGEMENT IN MASSACHUSETTS

Q. What is IPM?

A. IPM, or Integrated Pest Management, is a system which is based in the science of Ecology. A typical IPM system involves techniques to monitor weather, crop development, and life stages of pests and their natural enemies to determine if pests approach or exceed an economic threshold. The IPM user incorporates all suitable physical, cultural, biological or chemical techniques to maintain pests below damaging levels. IPM systems have been developed for both agricultural and non-agricultural situations.

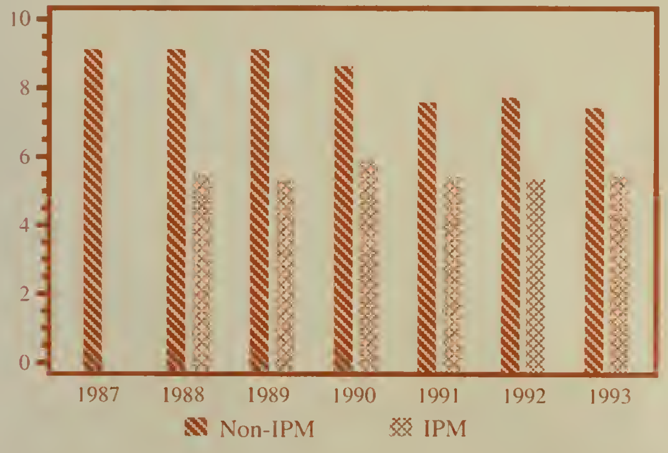




Q. How important is IPM to agriculture in the Commonwealth?

A. Over the past twenty years, increasing federal and state regulation, development of pest resistance, public concern about environmental contamination from pesticides, and economics have necessitated dramatic changes in how pesticides are used. In Massachusetts, both public- and private-sector IPM programs have demonstrated that it is possible in some crops to reduce pesticide use by between 25% and 70% with no loss of yield or quality.

Dosage Equivalents of Pesticides Used on Strawberries Under IPM and Non-IPM Management Practices

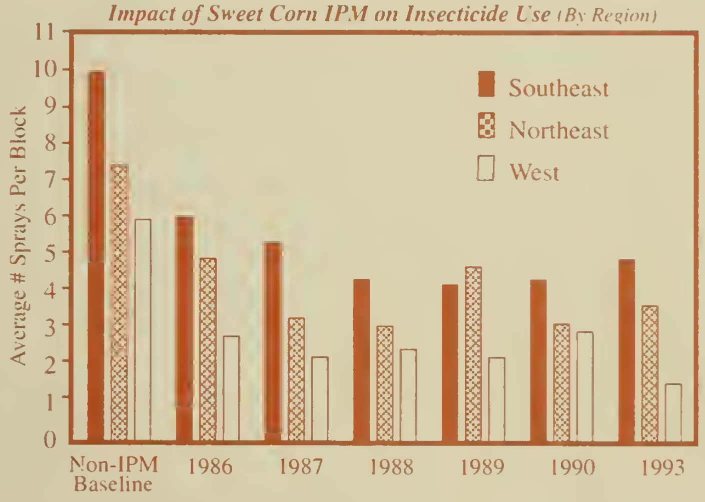


Q. What are some examples of pesticide use reduction due to IPM?

A. Between 1987 and 1993, strawberry growers participating in the University IPM program have reduced the number of pesticide sprays they used from an average of over 8 per year to about 5.5 with no loss of yield or fruit quality. Some participants completely eliminated all sprays for mites.

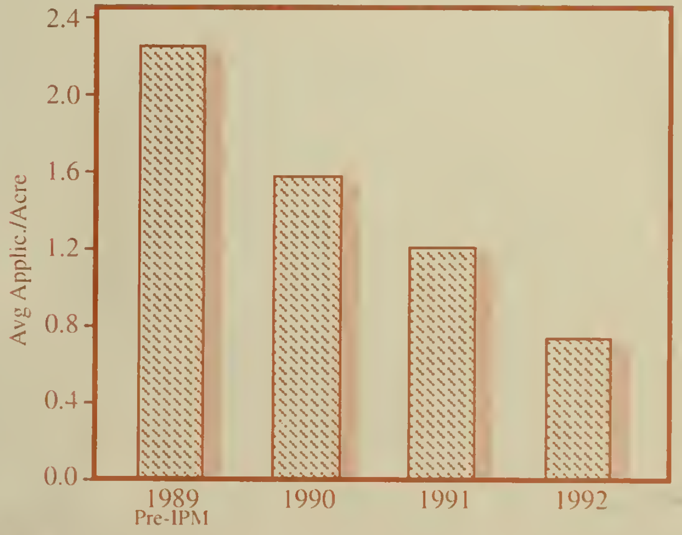
From 1985 to 1989, University cooperating sweet corn growers across the state were able to reduce insecticide use up to 70% by closely following IPM specialist recommendations.

Impact of Sweet Corn IPM on Insecticide Use (By Region)



Crucifer (cabbage, broccoli, cauliflower, etc.) growers who field tested IPM techniques developed by earlier University research reduced sprays for the cabbage root maggot, by up to 40% between 1986 and 1989. In addition,

Impact of Crucifer IPM on Spring Cabbage Root Maggot Controls



University of Massachusetts, United States Department of Agriculture, and Massachusetts counties cooperating.

943/546

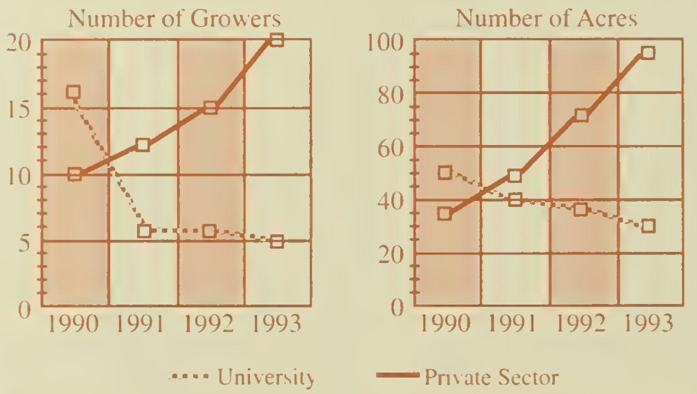
many cooperators switched from use of toxic, broad-spectrum insecticides to more benign materials based on the bacterium *Bacillus thuringiensis*.

Q. How has IPM contributed to economic development?

A. Since the start of the first University IPM program in 1978, nine private-sector IPM businesses employing approximately 25 persons have been created. Currently, about 40% of the state's cranberry and apple acreage, and about 20% of commercial strawberry and 9% (and growing) of sweet corn acreage receive IPM monitoring and advice from private-sector IPM scouts or consultants.

Among the new businesses related to IPM is Pest Management Supply Co., Inc., of Amherst, Mass., the largest source of pest management supplies in the United States, which was started by a former University student who received training by the IPM program.

Growth of Private Sector Strawberry IPM Scouting Services in Massachusetts



Q. How is IPM related to Sustainable Agriculture?

A. University of Massachusetts IPM research and education programs based at Amherst are key components of efforts to develop a sustainable agriculture, and represent the largest single source of information available to the private sector on biological controls and other alternatives to chemical pesticides and fertilizers in the Commonwealth.

Q. How important are Massachusetts Department of Food and Agriculture (MDFA) funds to IPM in the state?

A. Massachusetts Department of Food and Agriculture IPM funds represent one of the largest sources of financial support for UMass IPM education, demonstration and research. Other funding supporting UMass IPM total $87,000 from USDA, and about $30,000 annually from direct grower contribution. All funding sources are critical in that they represent the base of funding to leverage an additional $247,000 in USDA/CSRS research grant dollars by providing the required non-federal matching funds.

Maintenance and expansion of IPM education and grower adoption will be even more important in the future given the current federal policy goal to reduce pesticide use and to ensure adoption of IPM on 75% of US managed acres by the year 2000. In the absence of sufficient IPM funding, Massachusetts agricultural businesses may find themselves at a competitive disadvantage.

Q. How are MDFA IPM funds used?

A. Typically, between 60% and 80% of IPM project budgets go to support personnel, including 100% of full-time Extension IPM Specialists (7 individuals), and part-time or summer IPM staff (between 15 and 20 individuals). These personnel are essential given the statewide nature of program education/demonstration and research, most of which occurs on or in cooperating farms, landscapes and greenhouses. The remainder of funding supports travel to cooperating sites, purchase of essential supplies and equipment, publication of training manuals and fact sheets, telephone and mailing costs.

Q. Who can I contact for more information about IPM in Massachusetts?

A. Call or write the Cooperative Extension System IPM Program Coordinator at the University of Massachusetts:

William M. Coli
Department of Entomology
Fernald Hall
University of Massachusetts
Amherst MA 01003-0210
413-545-1051

GOVERNMENT DOCUMENTS
COLLECTION
1994
University of Massachusetts
Depository Copy

Integrated Pest Management Helps the Environment

Massachusetts farmers use IPM to reduce pesticide use, promote natural controls, and obtain better pest control.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the United States Department of Agriculture Robert G. Helgesen, Dean and Director, University of Massachusetts Cooperative Extension System. The Cooperative Extension System offers equal opportunity in programs and employment. AG1083:4 94-500